

Application/Control Number: 10/761,250

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1. (Currently Amended) 1. A method of forming a silicon-oxide-nitride-oxide-silicon (SONOS) type non-volatile memory device, comprising:

forming a plurality of first gates on a semiconductor substrate;

forming a plurality of charge storage spacers on a lower sidewall of the plurality of first gates so that an upper sidewall of a given first gate is exposed by a given charge storage spacer is on a sidewall of a given first gate; and

forming a plurality of second gates to be self-aligned to the plurality of charge storage spacers at the side of the plurality of first gates so that a given charge second gate covers the exposed upper sidewall of the given first gate and the given storage spacer on the plurality of first gates so that a given second gate is on a sidewall of a given first gate and covers a given charge storage spacer;

2. (Original) The method of claim 1, further comprising, prior to forming the plurality of first gates:

forming a device isolating layer defining an active region in a given region of the semiconductor substrate prior to forming the plurality of first gates; and

forming a gate insulating layer on the active region prior to forming the plurality of first gates.

3. (Original) The method of claim 2, wherein
forming the device isolating layer includes forming the device isolating layer in two
dimensions along columns and rows, and
forming the plurality of first gates includes forming at least two first gates in parallel on
the device isolating layers and disposed along one direction.
4. (Original) The method of claim 2, wherein forming the gate insulating layer
includes forming the gate insulating layer by thermal oxidation.
5. (Currently Amended) The method of claim 1, further comprising:
forming a first insulating layer on sidewalls of the given first gate prior to forming the
plurality of charge storage spacers.
6. (Currently Amended) The method of claim 1, wherein forming the plurality of
charge storage spacers includes:
forming a charge storage layer on the semiconductor substrate and plurality of first
gates; and
anisotropically etching the charge storage layer to form the plurality of charge storage
spacers, wherein the a given charge storage spacer has a top surface that is lower in relation to a
top surface of the a given first gate.
7. (Original) The method of claim 6, wherein anisotropically etching uses an etch
recipe that has an etch selectivity with respect to silicon oxide and silicon.

8. (Original) The method of claim 2, further comprising, prior to forming the plurality of second gates:

- forming a mask pattern covering an adjoining two first gates and a region between the adjoining first gates;
- forming a first impurity region in an active region between the mask patterns with a first ion implantation process using the mask pattern as a mask;
- removing any charge storage spacers that are disposed on the first impurity region; and
- removing the mask pattern, wherein the active region is confined by the device isolating layers.

9. (Original) The method of claim 8, wherein removing the charge storage spacers includes using an etch recipe that has etch selectivity with respect to silicon oxide and silicon.

10. (Original) The method of claim 8, further comprising:

- forming a mask pattern screening the first impurity region;
- forming a second impurity region in the active region with a second ion implantation process using the mask pattern as an ion implantation mask;
- removing the mask pattern; and
- removing any second gates disposed on the first impurity region.

11. (Original) The method of claim 1, further comprising:

- forming a second insulating layer to cover the semiconductor substrate and plurality of charge storage spacers, prior to forming the plurality of second gates.

12. (Original) The method of claim 1, wherein forming the plurality of second gates include:

forming a second gate conductive layer on the semiconductor substrate and plurality of charge storage spacers; and

anisotropically etching the second gate conductive layer with an etch recipe that has an etch selectivity with respect to silicon oxide and silicon.

13. (Original) The method of claim 1, further comprising:

forming a source region with an ion implantation process that uses a second gate and a first gate as a mask.

14. (Original) The method of claim 1, further comprising:

forming an interlayer insulating layer on the semiconductor substrate and plurality of second gates;

patterning the interlayer insulating layer to form an opening that exposes top surfaces of the first gates and second gates;

forming a conductive layer filling the opening; and

patterning the conductive layer.